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CARIBOU COUNTY (IDAHO). PRELIMINARY ECONOMIC RECONNAISSANCE AND ESTIMATE OF GROWTH, 1960-2010

Public Health Service
Portland, Oregon

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COLUMBIA RIVER BASIN PROJECT FOR WATER SUPPLY AND WATER QUALITY MANAGEMENT

CARIBOU COUNTY (IDAHO) PRELIMINARY ECONOMIC RECONNAISSANCE AND ESTIMATE OF GROWTH, 1960-2010

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This working paper contains preliminary data and information primarily intended for internal use by the Columbia River Basin Project staff and cooperating agencies. The material presented in this paper has not been fully evaluated and should not be considered as final.

CARIBOU COUNTY (IDAHO)
PRELIMINARY ECONOMIC RECONNAISSANCE
AND ESTIMATE OF GROWTH, 1960-2010

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CARIBOU COUNTY (IDAHO) C-1
PRELIMINARY ECONOMIC RECONNAISSANCE
AND ESTIMATE OF GROWTH, 1960-2010

SUMMARY

Caribou County, Idaho had a 1960 population of 5,976. The main town of the area, Soda Springs, contained 2,424 of these, or about 40 percent. Another 1,141 persons resided in two smaller towns; the remaining population was largely settled in scattered farms. The county's population grew at an annual rate of 0.7 percent during the 1950-60 decade.

Although agriculture is the principal source of employment in the county, actual employment in the category declined 15 percent in the last decade. In contrast, employment in mining and chemical manufacturing, which is almost entirely based on the phosphate industry, increased 145 percent, and represented 12.5 percent of the labor force in 1960. Development of the phosphate industry at Soda Springs has been followed by pronounced expansion of service industries.

Phosphate mining and refining is estimated to be a major reason for future growth in the county. This development would be accompanied by an increase in service activities and manufacturing to serve the local economy. Based on the assumptions and limitations which are a part of this preliminary economic reconnaissance, the population of Caribou County is forecast to be 15,000 persons in 1985 and 21,500 in 2010, with Soda Springs, the main town, growing to 11,300 and 17,600 at those dates.

I. INTRODUCTION

A. Purpose of This Analysis

This analysis is intended to provide a preliminary estimate of the economic potentials and anticipated growth of the subject area.

B. Definition of the Area

The study area consists of Caribou County, Idaho.

C. Study Period

The study period is the 50-year period 1960-2010, with an interim point at 1985.

D. Limitations of This Analysis

Three limitations apply to this study. The first is that it is intended only as a preliminary estimate of the outlook for the subject area's growth. Subsequently, in connection with the Columbia River Basin Project for Water Supply and Water Quality Management, an analysis will be made on an industry-by-industry basis of the growth potential in the various subbasins. At that time this preliminary estimate will be reviewed and revised if necessary.

The second limitation is that this study is intended for use particularly in assessing future water needs. Emphasis has been placed on the analysis of those industries which make heavy demands upon the water resource. Other industries have been considered only insofar as they may have a significant effect on future population. For this reason, this study is not submitted as a detailed industrial forecast.

The third limitation is one of scope. The study is oriented to a specific project and is intended for sizing purposes. Consideration of interregion relationships at a later date may require modification of conclusions.

II. PRESENT ECONOMIC BASE

A. Population

The population of Caribou County at the time of the 1950 and 1960 censuses is presented in Table I. Between 1950 and 1960 extremely rapid growth in Soda Springs, the principal town of the county, together with a moderate drop in rural populations, changed the composition of the area from predominantly rural - 53.5 percent of the population in 1950 - to moderately urban (59.6%). At the time of the 1960 census, Soda Springs contained almost 41 percent of the county's total inhabitants. Population in the two smaller towns in the county, Bancroft and Grace, declined as the farm-based population of the region underwent the contraction typical of Idaho and national agricultural areas.

TABLE I a/

Population Trends, Caribou County, 1950, 1960

	1950	1960	Change	
Bancroft	495	416	-79	(16.0%)
Grace	761	725	-36	(4.7%)
Soda Springs	1,329	2,424	1,095	(82.4%)
Total Urban	2,585	3,565	980	(65.5%)
Rural	2,991	2,411	-580	(19.4%)
Total County	5,576	5,976	400	(7.1%)

B. Industry

Table II lists employment in major industry categories at April, 1960.

(Table II on Page C-4)

a/ U. S. Census of Population, 1950, 1960.

TABLE II a/

Employment Trends, Caribou County

	1950		1960			
	No.	% Labor Force	No.	% Labor Force	Change	
Agriculture	831	(42.8)	705	(32.0)	-126	(- 15.2%)
Forestry & fisheries	7	(.4)	4	(.2)	- 3	(- 42.8%)
Mining	113	(5.8)	42	(1.9)	- 71	(- 62.8%)
Construction	86	(4.4)	111	(5.0)	25	(29.1%)
Mfg: wood products	22	(1.1)	0	(-	- 22	(-100. %)
food & kindred pdts	23	(1.1)	19	(.8)	- 4	(- 17.4%)
chemical & allied	0	-	235	(10.6)	235	-
all other	8	(.4)	24	(1.1)	16	(300 %)
Transportation	62	(3.2)	67	(3.0)	5	(8.0%)
Communications & utilities	74	(3.8)	102	(4.6)	28	(37.8%)
Wholesale & retail trade	238	(12.2)	338	(15.3)	100	(42.1%)
Financial & personal serv.	209	(10.7)	188	(8.5)	- 21	(-10.0%)
Educational services	102	(5.2)	128	(5.8)	26	(25.5%)
Other professional serv.	11	(.5)	49	(2.2)	38	(348.0%)
Public administration	66	(3.4)	68	(3.0)	2	(2.9%)
Industry not reported	32	(1.6)	8	(.3)	- 24	(-75.0%)
Total Employment	1,884	(97.0)	2,088	(94.3)	204	(10.8%)
Unemployed	58	(3.0)	126	(5.7)	68	(117.0%)
Labor force	1,942	(100.0)	2,214	(100.0)	272	(14.0%)

During the ten years 1950-60 Caribou County's labor force expanded 14 percent, rising from 32.8 percent of population to 37 percent of population. Employment in service industries climbed from 40.6 percent of the labor force to 42.7 percent of the labor force. And total employment rose 10.8 percent in spite of a 13.7 percent drop in 1950's main non-service industries, agriculture, lumbering and mining.

The interjection of the chemical industry with the location of Monsanto Chemical Company's phosphate plant at Soda Springs, has been responsible for much of the area's development during the last decade. Phosphate refining has provided sufficient employment to more than balance loss of farm jobs, and has provided the income to spur a considerable growth

a/ U. S. Census of Population, 1950, 1960

of service activities and construction in the area.

Mining in Caribou County consists of the strip-mining of phosphate deposits at three locations. The phosphate rock is largely processed at Soda Springs and nearby Montpelier and Pocatello. Because mining operations are the first step in integrated manufacturing operations, employment is fairly stable.

The agricultural economy is based increasingly on grazing. High elevation, a short growing season, moderate precipitation, and broken terrain interpose difficulties to many types of farming. The principal crops of the area are grains and hay, with a moderate amount of potatoes and sugar beets also cultivated. Farm consolidation has progressed far more slowly than in most parts of Idaho, due, perhaps, to the fact that the average size of farms in Caribou County is twice that of the state as a whole, with a consequent limit on the attainment of economies of scale available from consolidation. Although irrigation increased markedly between 1954 and 1959, there was little effect on either crop production or size of herds: in physical volume, grain output rose 2.2 percent; forage output rose 18.4 percent; potato output jumped 45 percent, but amounted to only 238,313 hundredweight in 1959; sugar beet output rose 7.5 percent; cattle and sheep herds rose very moderately, with a 7.2 percent rise in the number of milk cows accounting for the total increase in cattle numbers, testimony to increasing attention to dairying. Table III described significant trends in the agricultural economy of the area.

(Table III on Page C-6)

TABLE III [a]

Caribou County Agricultural Trends, 1949-1959

	1949	1954	1959	1949-1959 Change
No. of farms	393 [b]	579	545	-8.1%
Average size of farm(acres)	699.2 [b]	889.1	1052.1	50.5%
Pasture (acres)	166,986	251,293	305,298	80.3%
Land irrigated(acres)	41,360	51,451	51,882	25.4%
Cropland harvested(acres)	145,992	152,927	150,485	3.0%
Value of crops sold	$3,856,177	$3,825,607	$3,999,749	3.6%
Value of livestock & prdts sold	$2,583,014	$2,527,614	$3,487,870	23.4%
Dairy products sold	$ 396,262	$ 498,091	$ 633,441	57.3%

III. ESTIMATED FUTURE GROWTH

A. Factors Influencing Future Growth

Further development of the phosphate industry is the crucial element in assessing growth prospects of Caribou County. Largely due to rapid acceptance of detergents, demand for phosphate has increased at a better than ten percent average annual rate since World War II; and though maintenance of the rate of growth is unlikely, a still healthy rise in demand may be anticipated. The U. S. Department of Commerce has suggested a 4½ percent growth rate from 1965 to 1980. [1]

Idaho and Utah, perhaps Wyoming, have substantial deposits of this raw material. Growth of the western phosphate industry, however, must be related to high freight costs for coke used in processing and for shipment of finished materials to major markets - the East Coast for industrial chemicals, the Midwest for fertilizers. This competitive disadvantage has slowed development of the western phosphate industry, and makes it a somewhat marginal portion of the national industry. Discovery of substantial commercially

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a/ U. S. Census of Agriculture, 1950, 1960.
b/ 1950
1/ Current Industrial Reports, Inorganic Chemicals, Series M 28 A.

utilizable phosphate deposits closer to major markets would impede, perhaps preclude, growth of the Idaho industry for some years.

Several factors, however, suggest continuing robust growth. (1) Growth of western population favors revision of freight rates, as does the increasing willingness of regulatory bodies to allow greater flexibility in rate determination. (2) Export markets in the Orient and Latin America offer huge potential to the western phosphate industry. Foreign aid policies and economic growth in such undeveloped areas may well enable the western phosphate industry to share fully in growing world markets. (3) Development of regional sources of coke is being pursued, and could afford an important cost relief. (4) Most important, the highest production cost of phosphate is electricity. Public policies fostering the provision of low-cost electrical power such as is now available in other parts of the Pacific Northwest, could result in a flowering of the western phosphate industry analogous to that of the Northwest aluminum industry in the late 1940's and early 1950's.

For the purposes of this paper, it is assumed that the phosphate industry will experience employment growth on the order of four percent annually through the study period.

Agriculture, the county's largest employer, offers little prospect for growth. The present large size of the average farm,growth of dairying, and some easing of the uncertainty of agriculture through provision of supplementary irrigation, should permit farm employment and rural population to hold constant through the study period.

Services and construction should expand healthily in the framework provided by a vigorously growing phosphate industry. For design purposes, it is assumed that service employment will rise to sixty percent

of total employment by 1985, and maintain this ratio through the later stages of the study period. (In 1960, services provided 59 percent of all employment nationally. In 1962 the national ratio was well over sixty percent) Construction is estimated to maintain the 1950-60 rate of growth, 2.4 percent. Non-chemical manufacturing is assigned a two percent annual growth rate, somewhat arbitrarily, the reasoning being that expanding population and economic activity normally brings forth a number of manufacturing activities - e.g. bakeries, bottlers, metal and woodworking shops - serving a local market, and that such activities, accounting for only 1.9 percent of the 1960 labor force, are underdeveloped in the area.

The design economy, in employment terms, for 1985 and 2010 is contrasted with 1960 in Table IV.

TABLE IV

Projected Employment, Caribou County, 1960-2010

	1960	1985	2010
Agriculture	705	700	700
Mining	42	120	325
Construction	111	200	360
Mfg: chemical & allied	235	635	1715
all other	43	70	115
Services	952	2600	4835
Total Employed	2088	5325	8050
Unemployed	126	220 a/	335 a/
Total Labor Force	2214	5545	8385

a/ Projected at four percent of the labor force.

(A stringent limitation on this forecast should be noted. Development of the phosphate industry is the principal basis for predicting the growth of Caribou County; and in drawing the economic design it is assumed that growth will be centered proportionately in regions where the industry has already developed. It must be noted, however, that a large portion of eastern Idaho - roughly from Idaho Falls to Montpelier - offers the conditions for phosphate plant location.)

B. Future Population

The estimate of future population in Caribou County is based on the economic design drawn above and on the assumption that the labor force as a percent of the population will remain near 1960 levels. While a greater portion of the county's population was drawn into the labor force between 1950 and 1960, national trends in recent years suggest that the pool of labor is being drawn from an increasingly smaller part of the total population. It is possible, then, that before 2010 the labor force of Caribou County will consist of a smaller, rather than a larger, percentage of the area's numbers. Assuming, for the purposes of this paper, that the labor force remains constant at 37 percent of population, the forecast level of economic activity would permit Caribou County to accommodate a population of 15,000 in 1985 and of 21,500 in 2010. To reach these population levels would require average annual growth rates of 3.7 percent to 1985, 1.6 percent from 1985 to 2010.

Distribution of the future population would, logically, require assigning the bulk of growth to Soda Springs. Assuming that a much higher level of economic activity in this portion of Idaho permits an ancillary

growth of .5 percent annually in other towns, and that rural populations remain near 1960 levels, a design pattern of population distribution is presented in Table V.

TABLE V

Estimated Population, Caribou County, 1960-2010

	1960	1985	2010
Soda Springs	2,424	11,300	17,600
Other urban	1,141	1,300	1,500
Rural	2,411	2,400	2,400
Total	5,976	15,000	21,500